



Tyler Technologies

NYSE: TYL

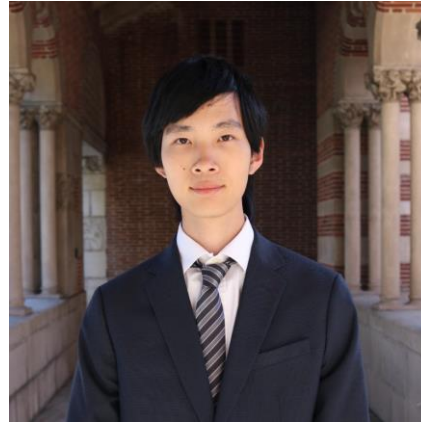
Underweight

Pure Alpha Tech

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Valuation Summary

Target Price:	\$239.89
2028 (5Yr.) Revenue Projection:	\$3,913.13 M
WACC	8.49%
Terminal Growth:	3.0%
Assumed Exit Multiple:	17.2x

Key Statistics

Current Stock Price:	\$410.12
52 Week High:	\$426.83
52 Week Low:	\$301.69
LTM Revenue:	\$1,831.5 M
2022 Revenue:	1,850.2 M
'23 Revenue Growth Rate:	43.8%
LTM Gross Margin:	42.5%
LTM EBITDA:	\$341.3 M
P/E:	109.25x
EV/Revenue:	8.2x

3 Yr. Price History



Key Drivers

- Short-Term Outlook:** In Q3 FY2023, the company's revenue growth slowed to 5% year-over-year amidst increased competition in the public sector SaaS and shifting macroeconomic conditions affecting government spending priorities and legislative impasses.
- Public Sector SaaS Spending:** Partisan divisions are impacting government software budgets, exacerbating delays in modernizing legacy systems and potentially leading to further cuts in non-defense spending with the 2024 election.
- Earnings Overreaction:** Tyler Technologies' current valuations—TEV/Revenue at 9.32x, TEV/EBITDA at 52.50x, P/EPS at 110.80x—are excessively high and likely to decrease over the next year. Forward looking multiples of TEV/Revenue at 8.62x, TEV/EBITDA at 33.58x, P/EPS at 48.44x reflect inflated earnings projections across the street.

Our View



We believe that Tyler Technologies is the premier player in public sector software and have conviction that TYL is well-positioned to continue to dominate the industry. However, we believe that the street is underestimating short-term industry headwinds that could have adverse effects on TYL's recurring revenue, timing and terms of new contracts, and operating margin. In addition, we believe that TYL's current valuation is grossly overestimated. We believe that TYL is better positioned than its smaller competitors but are bearish on near-term public sector spending due to current partisan impasses on discretionary spending, increased spending in defense and foreign affairs, and the continued use of legacy software in the public sector. Therefore, we have a target price of **\$274.68** and an underweight rating.

The Street View



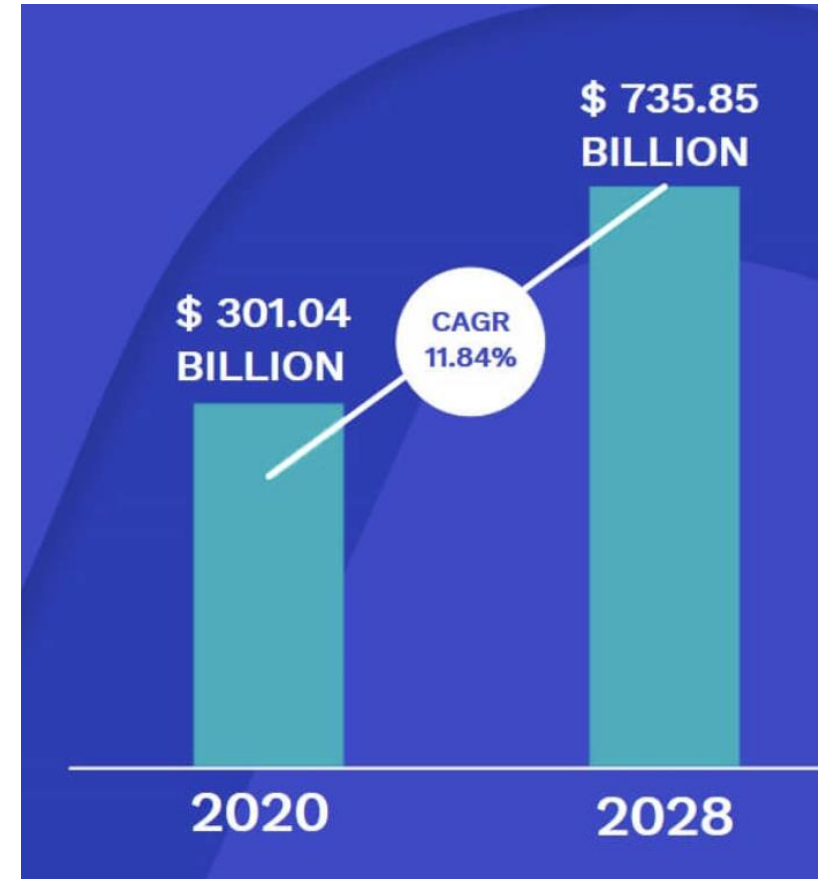
Tyler Technologies has established itself as the clear leader for public sector SaaS. As the largest provider of public sector enterprise software, TYL has continued to win key contracts at both local and federal levels. After Q3 earnings were released, TYL stock sharply rose more than 12%, because TYL showed steady growth and increased profitability in a difficult macroeconomic environment. The street is bullish on key dynamics including future revenue growth, continued margin expansion, and public sector software spending growth, with an average price target of **\$460.94** and an overweight rating.

Industry

The integrated software and technology solutions industry is experiencing robust growth, driven by the increasing demand for seamless connectivity and efficiency in various business processes. Additionally, market growth stems from the growing demand from organizations to boost the efficiency of their existing systems, increasing demand for automation technologies, adoption of cloud computing technology, and growth of broadband infrastructure

- Integration Software Market size valued at \$301.04 billion in 2020
- Projected to reach \$735.85 billion by 2028, growing at a CAGR of 11.84%
- Key competitors include Oracle, SAP, Workday
- Governments shifting to the cloud
- Subscription services preferred for budgeting

Industry Market Size Projection



Challenges in Profitability Expansion

- Despite robust revenue increases, companies are facing difficulties in boosting profitability/gross margins, hinting at potential issues like weak pricing power or poor cost management, highlighting a general need for enhanced operational efficiency and cost control.

Pipeline Unpredictability

- Unpredictable revenue streams due to clients' reliance on open bidding for products and services, which could correlate with short-term price appreciation due to winning significant contracts while lacking future guarantees of continued revenue.

Economic Conditions

- Reduced government IT spending budgets over the past 36 months due to current economic conditions. Putting pressure on companies within the industry space due to pipelines being supported by government contracts
- Long sales cycles and high ASPs make companies within the space sensitive to economic cycles. Revenue recognition policies indicate financial statements might not reflect changes in selling environment until multiple quarters after they occur.

<https://my-ibisworld-com.libproxy1.usc.edu/us/en/industry/52411b/external-environment>



Business Model Overview

Tyler Technologies, Inc. (“Tyler”) is a major provider of integrated information management solutions and services for the public sector. They partner with clients to make government more accessible to the public. They have a broad line of software solutions and services to address the information technology needs of major areas of operations for cities, counties, schools and other government entities. They offer clients delivery of software applications through software as a service and on-premise solutions. They provide professional IT services to clients, including software and hardware installation, data conversion, training and, at times, product modifications. In addition, Tyler is the nation’s largest provider of outsourced property appraisal services for taxing jurisdictions. Tyler’s major products are: ERP Financials, Court & Justices, Public Safety, Platform Technologies, Appraisal & Tax, Civic & Service, K-12 School, and other.

Key Statistics

Valuation

Market Capitalization: \$17.27 Bn
 EV / Sales: 9.14x
 P / E: 103.2x

Income

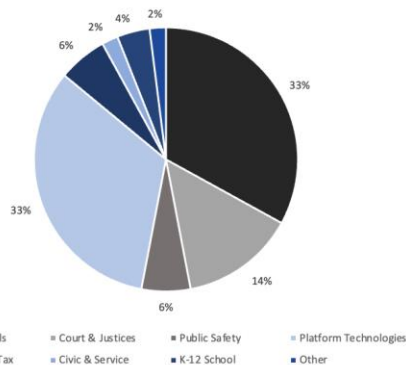
LTM Revenue: \$1,923 MM
 2024E Revenue: \$2,129 MM
 LTM Revenue Growth: 3.95%
 LTM Operating Income: \$214.6
 2024E Operating Income: \$234.19 MM

Profitability

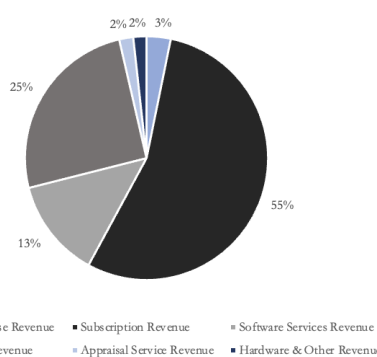
Gross Margin: 43.8%
 EBITDA Margin: 16.7%
 Net Income Margin: 8.2%

Revenue and Cost Mix (Pie Charts)

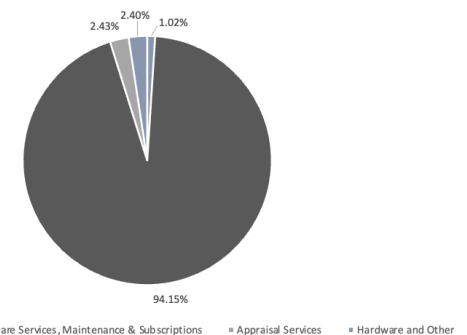
Revenue Mix (By Product)



Revenue Mix



Cost Mix

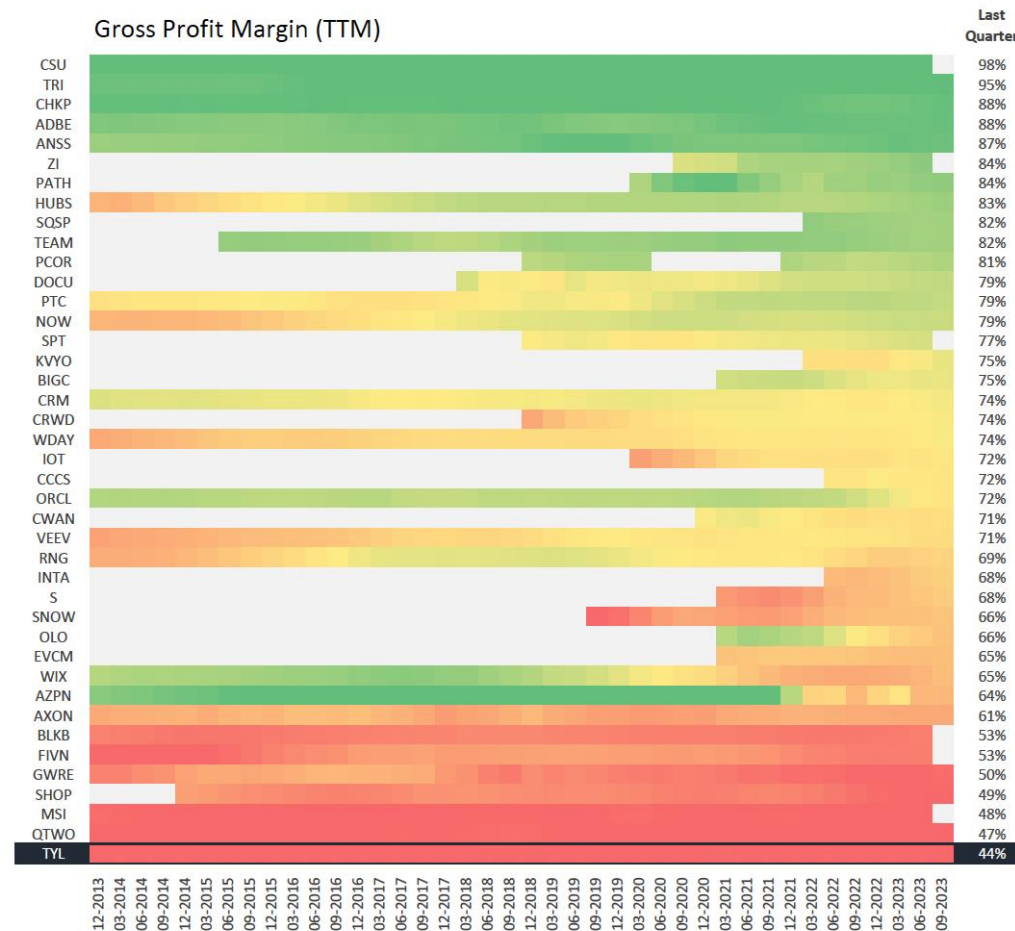


4. Company Overview – Downside Risk

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1. Strong Compounding Revenue but Lagging Margins
 - a. Despite revenue compounding at 18% gross and operating margins have declined (partially affected by merchant and interchange fees)
 - b. Recent quarterly report indicated gross margin expansion YoY but was completely offset by a rise in SG&A costs
 - c. Coupled with high ASPs thinner margins indicate less cushion to absorb shocks
2. Revenue Dependence
 - a. Recurring Revenue Mix rose to 83.4% of total revenues
 - b. Reliance on existing contracts creates downside risk with impasse on government spending threatening to lengthen sale cycles
3. Transaction Revenue Seasonality
 - a. Revenues tend to be higher in Q2 lower in Q4. Seasonality affected by macroeconomic conditions
4. Acquisition Risk
 - a. \$38 million in cash and acquisition spending for acquisitions of ARInspect and ResourceX.
 - b. Integration risks could affect bottom line (coupled with declining margins leads to issues)

Tyler Technologies Inc
Information Technology | United States of America



4. Company Overview – Key Competitors

NYSE: TYL



Oracle

Market Capitalization: \$318.42B
LTM Revenue: \$49.954B
LTM Revenue Growth: 17.7%
Gross Margin: 72.8%
Key Products: Oracle Cloud Infrastructure, Enterprise Applications, Hardware and Engineering Systems

Oracle Corporation is a leading global technology firm that operates with a multifaceted growth strategy, encompassing its Cloud and License segment, which offers a diverse range of cloud applications, platform services, and software licensing, and its Hardware and Services division, which provides advanced hardware solutions and related support services. The company emphasizes an integrated and scalable approach to technology, combining advanced cloud computing, artificial intelligence, database technology, and enterprise software products. Over the years, Oracle has shifted its focus towards cloud-based solutions and data-driven analytics, offering robust tools for business intelligence, customer relationship management, and efficient resource planning, thereby enabling organizations to optimize operations, drive innovation, and adapt to evolving market dynamics.

Notes: CapitalIQ, Company Filings



Motorola Solutions

Market Capitalization: \$53.221B
LTM Revenue: \$9.83B
LTM Revenue Growth: 12.7%
Gross Margin: 49.5%
Key Products: Safety & Security Ecosystem, Two-Way Radio Systems, Private Broadband

Company Description: Motorola Solutions, Inc. is a prominent player in the field of communications and analytics solutions, primarily serving public safety and commercial customers globally. The company, renowned for its innovation in mission-critical communications, offers a comprehensive portfolio that includes two-way radios, advanced software solutions, and a range of services. Motorola Solutions focuses on enhancing public safety through cutting-edge technology, including command center software, video security & analytics, and managed & support services. Serving a diverse client base, the company's operations span across government, public safety, and enterprise segments. In recent years, Motorola Solutions has expanded its offerings to include more advanced data and analytics solutions, aiming to provide integrated and efficient communication systems that ensure safety and operational excellence for its clients.



SAP

Market Capitalization: \$191.96B
LTM Revenue: \$35.37B
LTM Revenue Growth: 9.2%
Gross Margin: 71.3%
Key Products: Enterprise and Resource Planning, CRM and Customer Experience, Human Capital Management.

SAP SE is a global leader in enterprise application software, offering a comprehensive range of solutions encompassing enterprise resource planning (ERP), customer relationship management (CRM), supply chain management, and business intelligence. SAP serves over 440,000 customers in more than 180 countries, providing innovative software and technologies to help businesses of all sizes and industries run efficiently. A significant portion of SAP's revenue is generated from its software licenses and cloud subscriptions. The company underwent strategic restructuring in 2022, focusing on two main segments: the Intelligent Enterprise segment, which includes its flagship ERP software, S/4HANA, and cloud-based services, and the Experience Management segment, driven by its acquisition of Qualtrics, which focuses on experience management software solutions.

4. Company Overview - Management

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Lynn Moore
CEO

Lynn Moore is the President and CEO of Tyler Technologies. Moore has played a crucial role in driving the company's growth, overseeing over 55 strategic mergers and acquisitions, and leading significant revenue growth during his tenure as CEO. Before joining Tyler, he worked at Hughes & Luce in Dallas, specializing in litigation and corporate securities, and served major clients like ACS and Perot Systems



Brian Miller
CFO

Since 2008, Brian Miller has been Tyler's executive vice president and chief financial officer. Before joining Tyler, he held various senior management positions at Metro Airlines, Inc., a regional airline holding company operating as American Eagle. Prior to Metro Airlines, he was an audit manager with Ernst & Young, an international CPA firm.



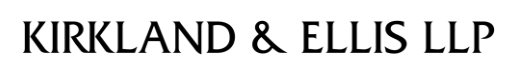
Samantha Crosby
CMO

Samantha Crosby is the CMO of Tyler Technologies. She leads a large team of over 150 professionals across various marketing domains, including product marketing, branding, and strategic communications. Before her time at Tyler, Samantha held senior roles in several prominent companies, such as PepsiCo, Inc., The Feld Group, Dell, and Freescale Semiconductor, bringing a diverse range of experiences to her role.



Abby Diaz
CLA

Abby serves as Tyler Technologies' chief legal officer. In this general counsel capacity, she oversees all contract negotiations and consults with Tyler's executive team on a variety of compliance, governance, and strategic decisions. Prior to joining Tyler, Abby practiced law with Kirkland & Ellis LLP and served as a law clerk for the U.S. Court of Appeals for the Third Circuit.



Russell Gainford
SVP - Cloud Strategy & Operations

Russell is responsible for defining best practices for cloud development, operations, and deployment to achieve the full value of Tyler's cloud initiative for both Tyler and its clients. Prior to joining Tyler, Russell was vice president of Engineering at Benefitfocus and vice president, Public Sector Development, at Infor.



Bruce Graham
Senior Strategy Advisor

Bruce Graham serves as the senior strategy advisor for Tyler Technologies. Prior to Tyler, Bruce held a senior position at BEA Systems (now part of Oracle), where he launched their service-oriented architecture practice, and was a founding partner at The Feld Group, an IT strategy firm catering to Fortune 200 companies.

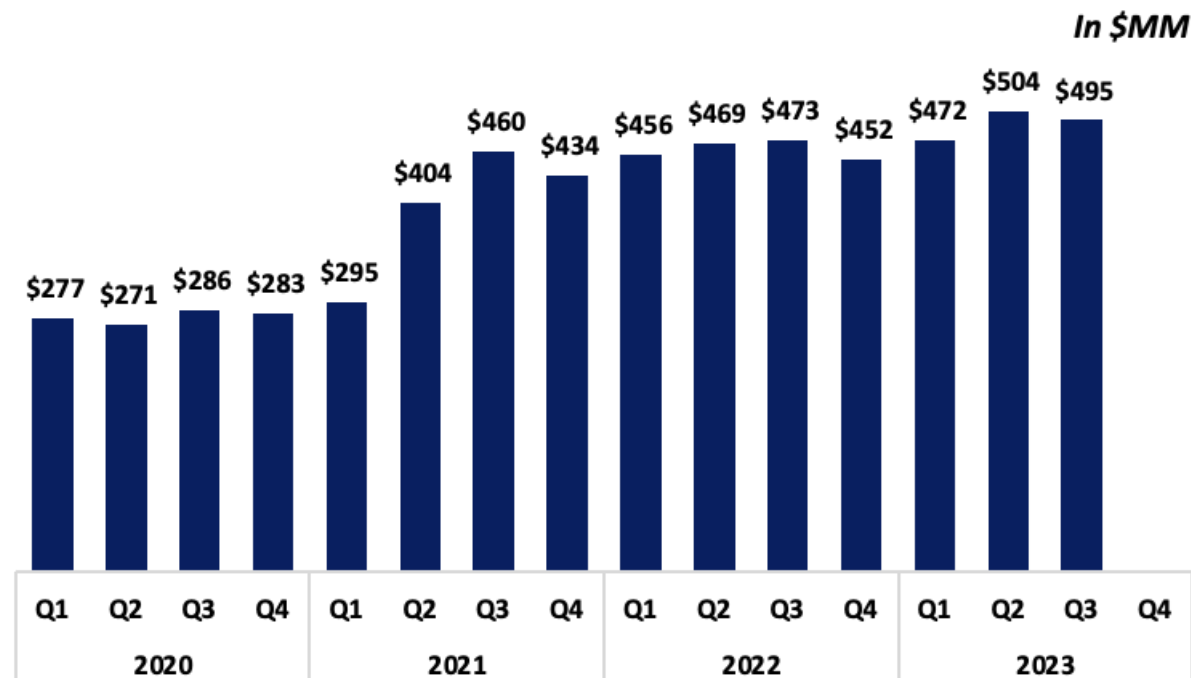
6. Key Driver 1: Declining Growth

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Short-Term Outlook

1. Revenue Growth is Slowing, Shown in Q3 FY2023 Earnings:
 - a. \$1,471MM Revenue (Last Nine Months), representing a 5% increase YoY, compared to 21% from 2021 to 2022
 - b. 2% decline QoQ
 - c. 5% increase YoY
1. Increased Competition in Public Sector
 - b. Alternative source of revenue during decline in enterprise spending
 - c. Private capital is being funneled into public sector SaaS
 - d. TYL has an extremely broad scope of products; product-specific competitors may be better positioned in their respective sub-vertical
1. Macroeconomic Headwinds
 - b. Greater allocation of government spending to defense and foreign policy
 - c. Partisan impasses on spending bills are increasingly common

Revenue Trends



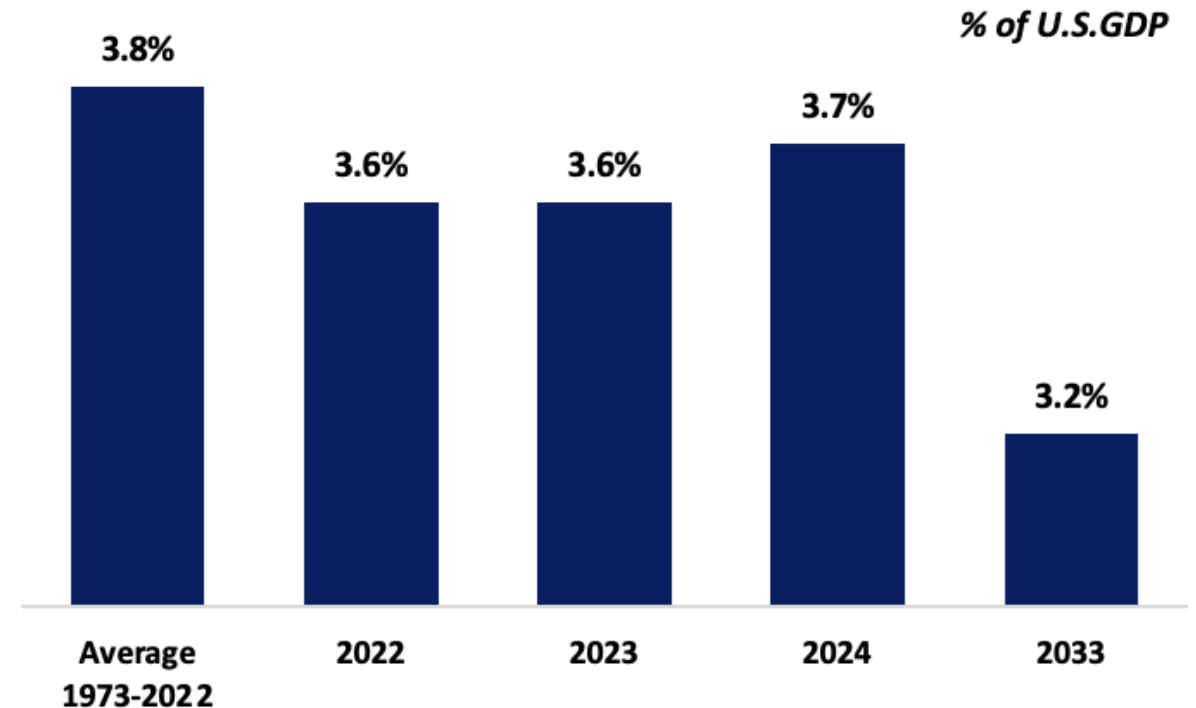
Industry Headwinds

1. Partisan Impasse on Government Spending
 - a. Extreme partisanship surrounding discretionary government spending strains software budgets
 - b. Increased spending on Defense will contract non-defense discretionary spending even further
 - c. Contracts will likely take longer to sign; customers may demand more favorable terms

1. Continued Prevalence of Legacy Software
 - b. Despite numerous studies and agreements to modernize legacy public sector software, many public agencies fail to implement new software with urgency
 - c. In 2019, the U.S. Government Accountability Office (GAO) identified the 10 most problematic legacy systems – 8 of which didn't have plans of modernization. In 2023, 2 agencies still haven't developed modernization plans

1. 2024 Election
 - b. A Republican House of Representatives (or president) is likely to continue to support spending cuts targeting the non-defense discretionary budget

U.S. Industry Market Size Projection



6. Key Driver 3: Earnings Overreaction

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Current Valuation

Last Twelve Months:

- a. TEV/Revenue: 9.32x
- b. TEV/EBITDA: 52.50x
- c. P/EPS: 110.80x

Next Twelve Months:

- a. TEV/Revenue: 8.62x
- b. TEV/EBITDA: 33.58x
- c. P/EPS: 48.44x

Although we believe Tyler Technologies should command a premium valuation, we believe that current valuations are grossly overestimated

We believe that the Street is overreacting to TYL's Q3 earnings beat, causing a temporary mispricing; we expect a significant reversal within the next year as governments cut non-defense discretionary spending and fail to implement modernization plans

Public Comparable Set

Company	Ticker	Primary Operation	Market Values		Profitability		Revenue Multiple	EBITDA Multiple	Leverage	
			Share Price (\$)	Equity Market Value	Enterprise Value	EBIT Margin (LTM)	EBITDA Margin (LTM)	EV/Revenue LTM	EV/EBITDA LTM	Net Debt/EBITDA LTM
ANSYS, Inc.	ANSS	Application Software	254.2	22,144.8	22,395.2	28.5%	34.0%	11.0x	32.3x	0.4x
Check Point Software Technologies Ltd.	CHKP	Application Software	129.1	16,184.3	12,637.0	38.30%	39.3%	5.5x	14.0x	(3.9x)
PTC Inc.	PTC	Application Software	132.0	15,507.5	16,775.5	25.8%	29.0%	8.7x	27.8x	2.3x
Motorola Solutions, Inc.	MSI	Application Software	250.4	41,869.4	47,453.4	21.7%	26.70%	5.4x	20.3x	2.4x
Constellation Software Inc.	CSU	Application Software	1,470.6	31,164.2	32,735.3	14.5%	20.5%	5.3x	30.6x	1.1x
Salesforce, Inc.	CRM	Application Software	162.1	161,907.9	162,693.9	1.6%	8.5%	5.5x	46.8x	1.1x
Median			\$206	\$26,655	\$27,565	23.8%	27.9%	5.5x	29.2x	1.1x
Min			\$129	\$15,508	\$12,637	1.6%	8.5%	5.3x	14.0x	(3.9x)
Max			\$1,471	\$161,908	\$162,694	38.3%	39.3%	11.0x	46.8x	2.4x
25th			\$140	\$17,674	\$18,180	16.3%	22.1%	5.4x	22.2x	0.5x
75th			\$253	\$39,193	\$43,774	27.8%	32.8%	7.9x	31.9x	2.0x
Mean			\$400	\$48,130	\$49,115	21.7%	26.3%	6.9x	28.6x	0.5x
St Dev			\$528	\$56,626	\$57,029	12.6%	10.8%	2.4x	11.2x	2.3x

Selection Criteria:	Median	Min	Max	25th	75th
Information Technology, Software, Application Software	\$206	\$129	\$1,471	\$140	\$253
Similar business model and margins	\$206	\$129	\$1,471	\$140	\$253
Excluded peers with negative EBITDA	\$206	\$129	\$1,471	\$140	\$253
Similar market capitalizations excluding outlier CRM	\$206	\$129	\$1,471	\$140	\$253

Tyler Technology	Representative Level	25th	Median	75th	Std Dev	Implied Enterprise Value
EV/EBITDA (LTM)	\$341	22.2x	29.2x	31.9x	11.2x	\$7568.3275 - \$10,878.94

(1) Values in \$US million

(2) Price data as of market close on Friday, November 24th, 2023

Implied Share Price

\$159.87-\$239.38

Income Statement Highlights

- Increasing Revenue
 - 29.4% increment in Rev for past 2 years
- Increasing Costs
 - 38% increase in COGS over past 3 years
- Decreasing Margin
 - EBIT Margin decreased from 15% to 11% over the past 3 years
- Net Income
 - Volatile over the last 5 years
 - Overall 16.8% increase over the last 5 years
 - Overall, revenue has not been able to acclimate to rising costs, resulting in declining net income
- Special Items
 - In 2022, there is a multi year tax credit benefit acquired

Income Statement

	Dec-31-2018	Dec-31-2019	Dec-31-2020	Dec-31-2021	Dec-31-2022
<i>Currency</i>	<i>USD</i>	<i>USD</i>	<i>USD</i>	<i>USD</i>	<i>USD</i>
Revenue	935.3	1,086.4	1,116.7	1,592.3	1,850.2
Cost Of Goods Sold	495.7	569.5	574.2	882.6	1,066.3
Gross Profit	439.6	516.9	542.5	709.6	783.9
Selling General & Admin Exp.	207.6	257.7	259.6	365.5	400.0
R & D Exp.	63.3	81.3	88.4	93.5	105.2
Amort. of Goodwill and Intangibles	16.2	21.4	21.7	44.8	61.4
Operating Income	152.5	156.4	172.9	205.8	217.3
Interest Expense	(0.8)	(2.0)	(1.0)	(23.3)	(28.4)
Interest and Invest. Income	-	-	3.1	1.5	1.7
Net Interest Exp.	(0.8)	(2.0)	2.1	(21.8)	(26.7)
Other Non-Operating Inc. (Exp.)	4.1	5.5	-	-	-
EBT Excl. Unusual Items	155.8	159.9	175.1	184.1	190.7
Merger & Related Restruct. Charges	-	-	-	(23.5)	(2.0)
Impairment of Goodwill	-	-	-	-	-
Asset Writedown	-	-	-	-	(1.1)
Other Unusual Items	-	-	-	(1.6)	-
EBT Incl. Unusual Items	155.8	159.9	175.1	159.0	187.6
Income Tax Expense	8.4	13.3	(19.8)	(2.5)	23.4
Net Income	147.4	146.6	194.9	161.5	164.2
Tax Rate	5.70%	9.08%	-10.16%	-1.55%	14.22%

In 2022, we completed a multi-year research and development tax credit study which resulted in a \$ 31.3 million research tax credit benefit.

Balance Sheet Highlights

- Assets
 - Receivables, Prepaid Exp, PPE all increased
 - Cash cut by ⅓ over past 2 years
- Liabilities
 - Current liabilities have increased due to an increase in deferred revenue
 - Substantial debt was taken on in 2021
 - Long term debt has been slowly paying off with cash
- Shareholders Equity
 - Total Equity increasing
 - Rate at which Retained Earnings is increasing has slowed down
 - APIC has steadily increased YOY

Balance Sheet

	Dec-31-2018	Dec-31-2019	Dec-31-2020	Dec-31-2021	Dec-31-2022
ASSETS					
Cash And Equivalents	134.3	232.7	603.6	309.2	173.9
Short Term Investments	44.3	39.4	72.2	52.3	37.0
Total Cash & ST Investments	178.6	272.1	675.8	361.5	210.9
Accounts Receivable	298.9	374.1	382.3	521.1	577.3
Other Receivables	4.7	6.5	21.6	18.1	-
Total Receivables	303.6	380.6	403.9	539.2	577.3
Prepaid Exp.	33.3	24.7	30.9	55.5	50.9
Other Current Assets	3.4	2.3	2.5	8.2	8.2
Total Current Assets	518.9	679.7	1,113.1	964.3	847.2
Gross Property, Plant & Equipment	244.5	303.4	324.6	362.3	394.5
Accumulated Depreciation	(89.3)	(112.6)	(137.9)	(141.4)	(170.7)
Net Property, Plant & Equipment	155.2	190.8	186.7	220.9	223.8
Long-term Investments	70.3	42.2	82.6	46.4	18.5
Goodwill	753.7	840.1	838.4	2,359.7	2,489.3
Other Intangibles	276.9	378.9	331.2	1,081.0	1,050.4
Accounts Receivable Long-Term	16.0	22.4	21.4	13.9	8.3
Other Long-Term Assets	-	37.4	33.8	46.0	50.0
Total Assets	1,791.0	2,191.6	2,607.3	4,732.1	4,687.4
LIABILITIES					
Accounts Payable	6.9	15.0	14.0	120.0	104.8
Accrued Exp.	66.5	75.2	83.1	158.4	131.9
Curr. Port. of LT Debt	0	0	0	30.0	30.0
Curr. Port. of Leases	0	6.4	5.9	10.6	10.7
Curr. Income Taxes Payable	0	0	0	0	43.7
Unearned Revenue, Current	350.5	412.5	461.3	510.5	568.5
Total Current Liabilities	423.9	509.1	564.3	829.5	889.7
Long-Term Debt	-	-	-	1,311.3	957.4
Long-Term Leases	-	16.8	16.3	36.3	48.0
Unearned Revenue, Non-Current	0.4	0.2	0.1	0.0	2.0
Def. Tax Liability, Non-Curr.	41.8	48.4	40.5	228.1	148.9
Other Non-Current Liabilities	-	-	-	2.9	17.0
Total Liabilities	466.1	574.6	621.2	2,408.1	2,063.0
Common Stock	0.5	0.5	0.5	0.5	0.5
Additional Paid In Capital	731.4	739.5	905.3	1,075.7	1,209.7
Retained Earnings	771.9	917.3	1,112.2	1,273.6	1,437.9
Treasury Stock	(178.9)	(40.2)	(31.8)	(25.7)	(22.8)
Comprehensive Inc. and Other	0	0	0	0	(0.8)
Total Common Equity	1,324.9	1,617.1	1,986.2	2,324.0	2,624.5
Total Liabilities And Equity	1,791.1	2,191.7	2,607.3	4,732.2	4,687.5

Notes

Key Points

Discounted Cash Flow Analysis

- Revenue:
 - We have a projected growth of 19.43% for the next year slowly decreasing to 10% by 2030.
 - We project a terminal growth rate of 3%
- Costs
 - We have EBIT, D&A, CapEx all as % of revenue and WC growing as a % change growth of Revenue Growth
- WACC
 - We ran a regression on monthly data over the past five years
 - With a R squared score of 0.32, this indicates that Beta is not a good indicator of the risk Tyler Tech is exposed to

		Forecasted											
	Units	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Revenue	\$M	\$935.28	\$1,086.43	\$1,116.66	\$1,592.29	\$1,850.20	\$2,209.77	\$2,604.46	\$3,028.71	\$3,474.43	\$3,931.13	\$4,386.06	\$4,824.66
Growth Rate	%		16.16%	2.78%	42.59%	16.20%	19.43%	17.86%	16.29%	14.72%	13.14%	11.57%	10.00%
Operating Income (EBIT)		\$152.49	\$156.37	\$172.93	\$205.84	\$217.35	\$313.16	\$369.09	\$429.21	\$492.38	\$557.10	\$621.57	\$683.73
% EBIT	%	16.30%	14.39%	15.49%	12.93%	11.75%	14.17%	14.17%	14.17%	14.17%	14.17%	14.17%	14.17%
Taxes (-)		\$8.70	\$27.90	(\$17.57)	(\$3.19)	\$30.91	\$30.28	\$35.69	\$41.50	\$47.61	\$53.86	\$60.10	\$66.11
Effective Tax Rate	%	5.70%	9.08%	-10.16%	-1.55%	14.22%	9.67%	9.67%	9.67%	9.67%	9.67%	9.67%	9.67%
Net Operating Profit After Tax (NOPAT)		\$143.80	\$128.47	\$190.50	\$209.02	\$186.44	\$282.88	\$333.40	\$387.71	\$444.77	\$503.24	\$561.47	\$617.62
(+) Depreciation & Amortization		\$38.79	\$45.73	\$54.28	\$97.91	\$111.94	\$134.79	\$158.87	\$184.74	\$211.93	\$239.79	\$267.54	\$294.29
% of Revenue		4.15%	4.21%	4.86%	6.15%	6.05%	6.10%	6.10%	6.10%	6.10%	6.10%	6.10%	6.10%
(+/-) Change in Working Capital			(\$11.46)	(\$26.02)	(\$64.97)	(\$26.52)	\$49.16	\$57.94	\$67.38	\$77.30	\$87.46	\$97.58	\$107.34
% Change of Revenue			1.05%	2.33%	4.08%	1.43%	2.22%	2.22%	2.22%	2.22%	2.22%	2.22%	2.22%
(-) Capital Expenditures			\$58.91	\$21.21	\$37.65	\$32.20	\$44.23	\$52.13	\$60.62	\$69.54	\$78.68	\$87.79	\$96.56
% of Revenue			5.42%	1.90%	2.36%	1.74%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Unlevered Free Cash Flow			\$126.75	\$249.59	\$334.26	\$292.70	\$324.28	\$382.20	\$444.46	\$509.87	\$576.89	\$643.65	\$708.01
Discount Period							1	2	3	4	5	6	7
PV of Cash UFCF							\$298.89	\$324.70	\$348.03	\$368.00	\$383.77	\$394.67	\$400.15

7. Valuation – Public Comparables

NYSE: TYL

PCA Profile

- Included a mix of companies similar in operations and financial
- Similar operational companies (ANSYS, Check Point Software Technologies, Constellation Software)
- Similar market capitalizations and debt profiles barring an outlier

Company	Ticker	Primary Operation	Market Values		Profitability		Revenue Multiple	EBITDA Multiple	Leverage	
			Share Price (2)	Equity Market Value	Enterprise Value	EBIT Margin (LTM)	EBITDA Margin (LTM)	EV/Revenue LTM	EV/EBITDA LTM	Net Debt/EBITDA LTM
ANSYS, Inc.	ANSS	Application Software	254.2	22,144.8	22,395.2	28.5%	34.0%	11.0x	32.3x	0.4x
Check Point Software Technologies Ltd.	CHKP	Application Software	129.1	16,184.3	12,637.0	38.30%	39.3%	5.5x	14.0x	(3.9x)
PTC Inc.	PTC	Application Software	132.0	15,507.5	16,775.5	25.8%	29.0%	8.7x	27.8x	2.3x
Motorola Solutions, Inc.	MSI	Application Software	250.4	41,869.4	47,453.4	21.7%	26.70%	5.4x	20.3x	2.4x
Constellation Software Inc.	CSU	Application Software	1,470.6	31,164.2	32,735.3	14.5%	20.5%	5.3x	30.6x	1.1x
Salesforce, Inc.	CRM	Application Software	162.1	161,907.9	162,693.9	1.6%	8.5%	5.5x	46.8x	1.1x

Selection Criteria:

Information Technology, Software, Application Software

Similar business model and margins

Excluded peers with negative EBITDA

Similar market capitalizations excluding outlier CRM

Median	\$206	\$26,655	\$27,565	23.8%	27.9%	5.5x	29.2x	1.1x
Min	\$129	\$15,508	\$12,637	1.6%	8.5%	5.3x	14.0x	(3.9x)
Max	\$1,471	\$161,908	\$162,694	38.3%	39.3%	11.0x	46.8x	2.4x
25th	\$140	\$17,674	\$18,180	16.3%	22.1%	5.4x	22.2x	0.5x
75th	\$253	\$39,193	\$43,774	27.8%	32.8%	7.9x	31.9x	2.0x
Mean	\$400	\$48,130	\$49,115	21.7%	26.3%	6.9x	28.6x	0.5x
St Dev	\$528	\$56,626	\$57,029	12.6%	10.8%	2.4x	11.2x	2.3x

Tyler Technology	Representative Level	25th	Median	75th	Std Dev	Implied Enterprise Value
EV/EBITDA (LTM)	\$341	22.2x	29.2x	31.9x	11.2x	\$7568.3275 - \$10,878.94

Implied Share Price

\$159.87-\$239.38

(1) Values in \$US million

(2) Price data as of market close on Friday, November 24th, 2023

7. Valuation – DCF Analysis

NYSE: TYL

Discounted Cash Flow Projections

	Units	Forecasted											
		FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Revenue	\$M	\$935.28	\$1,086.43	\$1,116.66	\$1,592.29	\$1,850.20	\$2,209.77	\$2,604.46	\$3,028.71	\$3,474.43	\$3,931.13	\$4,386.06	\$4,824.66
Growth Rate	%		16.16%	2.78%	42.59%	16.20%	19.43%	17.86%	16.29%	14.72%	13.14%	11.57%	10.00%
Operating Income (EBIT)		\$152.49	\$156.37	\$172.93	\$205.84	\$217.35	\$313.16	\$369.09	\$429.21	\$492.38	\$557.10	\$621.57	\$683.73
% EBIT	%	16.30%	14.39%	15.49%	12.93%	11.75%	14.17%	14.17%	14.17%	14.17%	14.17%	14.17%	14.17%
Taxes (-)		\$8.70	\$27.90	(\$17.57)	(\$3.19)	\$30.91	\$30.28	\$35.69	\$41.50	\$47.61	\$53.86	\$60.10	\$66.11
Effective Tax Rate	%	5.70%	9.08%	-10.16%	-1.55%	14.22%	9.67%	9.67%	9.67%	9.67%	9.67%	9.67%	9.67%
Net Operating Profit After Tax (NOPAT)		\$143.80	\$128.47	\$190.50	\$209.02	\$186.44	\$282.88	\$333.40	\$387.71	\$444.77	\$503.24	\$561.47	\$617.62
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% of Revenue		4.15%	4.21%	4.86%	6.15%	6.05%	6.10%	6.10%	6.10%	6.10%	6.10%	6.10%	6.10%
(+/-) Change in Working Capital			(\$11.46)	(\$26.02)	(\$64.97)	(\$26.52)	\$49.16	\$57.94	\$67.38	\$77.30	\$87.46	\$97.58	\$107.34
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(-) Capital Expenditures			\$58.91	\$21.21	\$37.65	\$32.20	\$44.23	\$52.13	\$60.62	\$69.54	\$78.68	\$87.79	\$96.56
% of Revenue			5.42%	1.90%	2.36%	1.74%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Unlevered Free Cash Flow			\$126.75	\$249.59	\$334.26	\$292.70	\$324.28	\$382.20	\$444.46	\$509.87	\$576.89	\$643.65	\$708.01
Discount Period						1	2	3	4	5	6	7	
PV of Cash UFCF						\$298.89	\$324.70	\$348.03	\$368.00	\$383.77	\$394.67	\$400.15	

WACC 8.49%

PV of Unlevered Free Cash Flow \$2,518.22
 Terminal Value (FCF) \$13,275.33
 Terminal Value (Multiple) \$16,821.92
 PV of Terminal Value (FCF) \$7,502.84
 PV of Terminal Value (Multiple) \$9,507.27

Implied Enterprise Value FCF	\$10,021.05
Implied Enterprise Value Multiple	\$12,025.49

Cash and long term investments \$210.89
 Minority Interest 0
 Total Debt \$987.39

Equity Value (FCF)	\$9,244.55
Equity Value (Multiple)	\$11,248.98

Total Diluted Shares 42.5

Implied Value per Share (FCF)	\$217.52
Implied Value per Share (Multiple)	\$264.68

		FCF					
		\$217.52	2.00%	2.50%	3.00%	3.50%	4.00%
WACC	7.49%	230.0258395	249.7382324	273.8409134	303.9843665	342.7649121	
	7.99%	207.7798582	223.7504203	242.9214959	266.3622987	295.6779894	
	8.49%	188.9945817	202.13505	217.6690461	236.3160676	259.1161005	
	8.99%	172.9264532	183.8806068	196.6635006	211.7747904	229.9143947	
	9.49%	159.0304928	168.2650247	178.9224429	191.3590628	206.0610051	

		EBITDA Multiple					
		264.68	13.2	15.2	17.2	19.2	21.2
WACC	7.49%	226.5568136	254.316326	282.0758385	309.8353509	337.5948634	
	7.99%	219.5064206	246.3786368	273.2508531	300.1230694	326.9952856	
	8.49%	212.7024135	238.7195988	264.7367841	290.7539693	316.7711546	
	8.99%	206.1349691	231.3280746	256.5211802	281.7142857	306.9073912	
	9.49%	199.7947007	224.193423	248.5921453	272.9908676	297.3895898	

Acquisitive Strategy

- Tyler Technologies has experienced large growth through their acquisitions (over 50 in the past 25 years) including the most recent addition of NIC. Future acquisitions could contribute to a more robust pipeline of contracts and market control
 - *Tyler Technologies competes in the very mature stage space in most of its end markets with mature competitors which may exert pricing pressures regardless of synergies through acquisitions.*

Balance Sheet Improvements

- Management is targeting aggressive leverage decrease over the next few years reflected in the net leverage ratio being halved over the past two years. Reflective of the firm's financial discipline, this balance sheet improvement could drive profitability and bottom line growth.
 - *Even with a substantial rise in profitability firm still proves grossly overvalued*

Gross Margin Expansion

- Gross margins expanded year over year by more than two percentage points especially key due to the low gross margins of the firm.
 - *This growth in gross margins was offset by the increase in SG&A expenses which led to flatlined operating margins YoY with no signs of change.*

Notes